

III. REMARKS

Claims 1, 4-11, and 13-20 are pending in this application. Claims 1, 11 and 17 have been amended, while claims 9 and 10 have been cancelled. Support for these amendments is found in Applicants' original specification generally, and specifically at Paragraph 23. Applicants are not conceding in this application that those claims are not patentable over art cited by the Examiner, as the present claim amendments and cancellations are for facilitating expeditious allowance of the claimed subject matter. Further, Applicants reserve the right to pursue the full scope of the subject matter of the original claims in a subsequent patent application that claims priority to the instant application. Reconsideration in view of the following remarks is respectfully requested.

In the Office Action, claims 1 and 7 are rejected under 35 U.S.C. 103(b) as being allegedly unpatentable over Nitta et. al. (US Pub. No. 2001/0054764), hereinafter "Nitta" in view of Dubin (Pat. No. 6359328), hereinafter "Dubin." Further, claims 4-5, 11, 13, 15, 17 and 19 are rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Nitta in view of Dubin, and in further view of Cooney, III et. al. (US Pub. No. 2004/0018714), hereinafter "Cooney." The Office also rejected claim 8 under 35 U.S.C. 103(a) as being allegedly unpatentable over Nitta in view of Dubin, and in further view of Parekh (Pat. No. 6214727), hereinafter, "Parekh." Even further, claims 16 and 20 are rejected under 35 U.S.C. 103(b) as being allegedly unpatentable over Nitta in view of Dubin and Cooney, and in further view of Parekh. The Office also rejected claims 6, 11, 14, 17 and 18 under 35 U.S.C. 103(b) as being allegedly unpatentable over Nitta in view of Dubin, and in further view of Tsai (US Pub. No. 2003/0077897), hereinafter "Tsai." Finally, claims 9-10 are rejected under 35 U.S.C. 103(b) as being allegedly unpatentable

over Nitta, in view of Dubin, and in further view of Te Velde (Pat. No. 4561173), hereinafter “Te Velde.” Applicants respectfully assert that the amended claims are in condition for allowance.

With respect to claim rejections under 35 U.S.C. 103(a), currently amended claim 1 reads, “removing the sacrificial layer sidewall using a dry etching process, after the metal and the conductive liner are planarized, forming a void, wherein the void extends along a side of the contact via and the wire...” (Claim 1, and similarly recited in claim 11, line 15; and claim 17, line 16) (emphasis added). In contrast with the invention of claims 1, 11, and 17, Nitta refers to a wet etching process to remove a sacrificial layer sidewall. (Nitta at Para. 76). As posited by the Office, Nitta discusses removing a sacrificial layer sidewall (“spacer”) in order to form a void. (Office Action at 3; Nitta at Paras. 76-77, Fig. 6D). However, Nitta does not disclose the use of a dry etching process to remove the sacrificial layer sidewall. In fact, Nitta suggests that use of a wet etching process is beneficial, stating, “[w]et etching in phosphoric acid allows the spacers to be selectively removed from the sidewalls of the groove.” (Nitta at Para. 76). Even further, Nitta’s discussion of “anisotropic etching” in a separate process step (Nitta at Para. 74), indicates that Nitta was aware of the benefits of other etching methods. This fact only strengthens the presumption that Nitta’s choice of “wet etching” was both limiting and calculated. Where Nitta specifically discloses wet etching as a means of removing sacrificial layer sidewalls, it necessarily does not disclose the use of a dry etching process as in amended claim 1. As such, Nitta does not teach, “removing the sacrificial layer sidewall using a dry etching process.” In light of this fact, Applicants respectfully request withdrawal of the rejections.

With respect to claim rejections under 35 U.S.C. 103(a), the Office relies on Nitta to teach the recited feature, and asserts that Nitta “discloses most of the limitations of the claims as discussed...” (Office Action at p. 4 and 7). Further, not one of Dubin, Cooney, Parekh, Tsai, and Te Velde overcome the deficiencies of Nitta or are alleged to do so by the Office. As such, Applicants respectfully request withdrawal of rejections based upon combinations of Nitta and the above-mentioned references.

The dependent claims are believed allowable for the same reasons stated above, as well as for their own additional features.

Applicants respectfully submit that the Application as presented is in condition for allowance. Should the Examiner believe that anything further is necessary in order to place the application in better condition for allowance, the Examiner is requested to contact Applicants’ undersigned attorney at the telephone number listed below.

Respectfully submitted,

/Spencer K. Warnick/
Spencer K. Warnick
Reg. No. 40,398

Date: 1 April 2008

(MP)

Hoffman, Warnick and D’Alessandro, LLC
75 State Street, 14th Floor
Albany, New York 12207
Phone: (518) 449-0044
Fax: (518) 449-0047